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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dietmar Rudolph

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8344

23280

7590

09/01/2006

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EXAMINER

SWERDLOW, DANIEL

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/980,809	<b>Applicant(s)</b> RUDOLPH, DIETMAR	
	<b>Examiner</b> Daniel Swerdlow	<b>Art Unit</b> 2615	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 4-6, 9 and 12 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 5, 9 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. Regarding Claims 5 and 9, the recitation in the claims of the digital radio transmission being a type of broadcast transmission for which a digital radio mondiale system recommended by an international telecommunication union establishes that a reception quality and a coverage reliability be not worse than for an analog transmission and that a same quality be guaranteed for mobile reception as for stationary reception, and that several transmitters are useable on a same frequency with a same program into approximately a same target area as with the analog transmission is not supported in the original disclosure as filed with the international application on 7 April 2000.

4. Regarding Claim 12, the recitation in the claim of using the backward channel to provide a high reception quality and coverage reliability is not supported in the original disclosure as filed with the international application on 7 April 2000.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent (WO 98/24201) in view of Wilkens (US 4,309,771).

7. WO 98/24201 is prior art with respect to the present application under 35 USC 102(a) due to its publication on 4 June 1998. For convenience, US 6,418,300 is relied upon as an English translation. Column, line and figure citations are made to the US patent.

8. Regarding Claim 12, Laurent discloses a system for digital radio broadcasting using an amplitude modulation (AM) transmitter in a shortwave range (column 1, lines 9-15). Therefore, Laurent anticipates all elements of Claim 12 except providing a backward channel to the transmitter for signals received in a target area and using the backward channel to provide high reception quality and coverage reliability. Wilkens discloses a digital radio transmission system (Fig. 1) with a backward channel ( $T_B$  to  $R_A$ ) for a quality estimate of the signal received by a receiver 20 that is used to adjust the power level of the transmitter to maintain reception quality and coverage reliability (column 2, lines 23-49). Wilkens further discloses that such an arrangement makes it possible to compensate for adjacent and co-channel interference, and for certain transmission distortion effects, in addition to degradation due to fading (signal level variation), and therefore to operate at much lower average signal levels. It would have been obvious to one skilled in the art at the time of the invention to apply the backward channel

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feedback taught by Wilkens to the shortwave AM digital radio broadcast system taught by Laurent for the purpose of realizing the aforesaid advantages.

9. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent (WO 98/24201) in view of Wilkens and further in view of well-known prior art.

10. Regarding Claim 4, in addition to the elements shown above apropos of Claim 12, Wilkens discloses regulation of transmitter power in response to the received parameters (i.e., influencing modulation). Therefore, the combination of Laurent and Wilkens makes obvious all elements except use of an Internet as a feedback channel. Examiner takes official notice of the fact that use of an Internet to transmit information was well known at the time of the invention. One skilled in the art would have known that use of the Internet provides economical and flexible communications. It would have been obvious to one skilled in the art at the time of the invention to apply the well known Internet to the combination made obvious by Laurent and Wilkens for the purpose of realizing the aforesaid advantages.

11. Regarding Claim 6, Laurent further discloses a broadcasting system (column 1, lines 9-13).

***Allowable Subject Matter***

12. Claims 8, 10 and 11 are allowable.

13. Regarding Claim 8, as shown above apropos of Claim 4, the combination of Laurent and Wilkens makes obvious all elements except determining alternative frequencies based on the transmitted parameters. While Wilkens discloses regulation of transmitter power in response to

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the transmitted parameters, there is no disclosure of determining alternative frequencies.

Because the prior art fails to disclose or suggest all elements, the claim is allowable.

14. Claims 10 and 11 are allowable due to dependence from Claim 8.

15. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Regarding Claim 7, as shown above apropos of Claim 4, the combination of Laurent and Wilkens makes obvious all elements except storing the transmitted parameter in a data base for frequency prognosis. While Wilkens discloses an integrator (Fig. 2, reference 54) that stores the incoming parameter, there is no disclosure of use of the stored parameter for frequency prognosis. Because the prior art fails to disclose or suggest all elements, the claim is allowable matter.

### ***Response to Arguments***

17. Applicant's arguments with respect to claims 4, 5, 6, 9 and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Examination of this application has been transferred to the undersigned. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds  
22 August 2006